

## 090202-103000

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creating a pocket beneath the mucosa and in communication with the

enlarging the puncture; and

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3. A method of implanting a bulking device as in Claim 2, wherein the bulking device is expandable from an introduction cross sectional area to an enlarged cross sectional area, and the introduction cross sectional area is greater than the first cross sectional area.

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5. A method of implanting a bulking device as in Claim 1, wherein the g a pocket step comprises introducing a volume of fluid beneath the mucosa.

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6. A method of implanting a bulking device as in Claim 5, wherein the creating a pocket step comprises introducing within the range of from about 0.5 cc to about 5 cc of fluid beneath the mucosa.

7. A method of implanting a bulking device as in Claim 5, wherein the fluid comprises saline.

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8. A method of implanting a bulking device as in Claim 5, wherein the fluid comprises an additive selected from the group consisting of hyaluronic acid, lidocaine, epinephrine, antibiotics, polyethylene glycol, colorants, and contrast media.

9. A method of implanting a bulking device as in Claim 5, wherein the introducing a volume of fluid is accomplished using an injection needle.

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10. A method of implanting a bulking device as in Claim 9, wherein the needle is within the range of from about 18 gauge to about 30 gauge.

11. A method of implanting a bulking device as in Claim 1, wherein the enlarging step comprises introducing a dilator through the puncture.

12. A method of implanting a bulking device as in Claim 11, wherein the dilator removably carries an introducer sheath.

5 13. A method of implanting a bulking device as in Claim 12, further comprising the steps of removing the dilator from the introducer sheath and introducing the bulking device through the introducer sheath and into the pocket.

14. A method of treating a condition in the lower esophagus, comprising the steps of:

10 creating a pocket beneath the mucosa in the lower esophagus; and positioning an expandable bulking device within the pocket.

15 15. A method as in Claim 14, wherein the bulking device comprises a hydrogel.

16. A method as in Claim 14, wherein the bulking device is expandable in response to exposure to fluid.

17. A method as in Claim 15, wherein the bulking device has a diameter prior to implantation within the range of from about 0.2 mm to about 5 mm.

18. A method as in Claim 17, wherein the bulking device has a cross section prior to implantation of no more than about 2.5 mm.

20 19. A method as in Claim 14, further comprising the step of removing the bulking device from the pocket.

20. A method as in Claim 19, wherein the removing step is accomplished by creating a passageway through tissue to the bulking device.

25 21. A method as in Claim 20, wherein the removing step further comprises using suction.

22. A method as in Claim 19, wherein the removing step comprises introducing a solvent to dissolve the bulking device.

23. A method as in Claim 22, wherein the solvent comprises DMSO.

30 24. A method as in Claim 19, wherein the removing step is accomplished utilizing a laser.

25. A method as in Claim 19, wherein the removing step is accomplished using an energy source.

26. A method as in Claim 19, wherein the removing step comprises cutting the bulking device into pieces.

27. A method of explanting a bulking device positioned beneath the mucosa in the vicinity of the lower esophageal sphincter, comprising the steps of:

locating a bulking device positioned beneath the esophageal mucosa;

establishing a passage through the mucosa; and

explanting the bulking device through the passage.

28. A method of explanting a bulking device as in Claim 27, wherein the explanting step is accomplished using an endoscope.

29. A method of explanting a bulking device as in Claim 27, wherein the establishing a passageway step is accomplished using an RF electrode.

30. A method of explanting a bulking device as in Claim 27, wherein the establishing a passageway step is accomplished using a sharpened instrument.

31. A method of explanting a bulking device as in Claim 27, wherein the explanting step is accomplished by applying suction.

32. A method of explanting a bulking device as in Claim 27, wherein the explanting step comprises pushing the bulking device through the passage.

33. A method of explanting a bulking device as in Claim 27, wherein the explanting step is accomplished using a mechanical explanting tool.

34. A method of implanting a bulking device beneath the mucosa in the lower esophagus, comprising the steps of:

puncturing the mucosa with a device having a first cross sectional area;

enlarging the puncture; and

introducing an expandable bulking device through the puncture to a position beneath the mucosa.

35. A method of implanting a bulking device as in Claim 34 wherein the introducing step comprises introducing a hydrogel bulking device.

36. A method of implanting a bulking device as in Claim 34, wherein the enlarging step comprises advancing a dilator through the puncture.

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